



24-BR-6010
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Boardman et al.

Serial No.: 09/735,009

Filed: December 12, 2000

For: SYSTEM AND METHODS OF
PRODUCING HYDROGEN USING A
NUCLEAR REACTOR

Art Unit: 3641

Examiner: R. Palabrica

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GROUP 3800

AMENDMENT AFTER FINAL OFFICE ACTION (37 C.F.R. § 1.116)

Commissioner for Patents
P.O. Box 1450
Arlington, VA 22313

Applicant respectfully requests consideration and entry of the following amendment
submitted in response to the Office Action dated May 22, 2003, and made final.

IN THE CLAIMS

1. (four times amended) A system for generating hydrogen comprising:

feed water;

a liquid metal nuclear reactor having a non-radioactive secondary heat loop comprising a
recirculated heat transfer medium;

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a steam generator connected to said secondary heat loop, said heat transfer medium and
said feed water passing through said steam generator, said steam generator capable of raising the
temperature of said feed water;

a high temperature water cracking system, said feed water coupled to said water cracking
system by a feed water input line, said secondary heat loop and said recirculated heat transfer
medium being separate from said high temperature water cracking system; and